

Appl. No.: 10/823,344

Attorney Docket No.: 040148

IN THE SPECIFICATION

Kindly replace the following paragraphs in the Specification with the following rewritten paragraphs:

[0034] Within second section 214a, a diplexer 230a couples to diversity antenna 204, the second GSM receive path, and the diversity CDMA receive path. Diplexer 230a is a frequency selective unit that splits the received signal from diversity antenna 204 into two output signals containing signal components in two frequency bands. Diplexer 230a provides (1) a first diplexer output signal containing GSM signal components to the second GSM receive path and (2) a second diplexer output signal containing CDMA signal components to the diversity CDMA receive path. Other frequency selective units may also be used in place of diplexer 230a. Diplexer 230a may also be implemented with a single-pole two-throw (SP2T) switch, a signal splitter that does not perform filtering, or some other unit. The second GSM receive path includes (1) a filter 226b that filters the first diplexer output signal for the second GSM receive band (GSM RX2) and (2) an LNA 228b that amplifies the filtered signal from filter 226b and provides a second GSM received signal (GRX2) to RF unit 250a. The diversity CDMA receive path includes (1) a filter 236b that filters the second diplexer output signal for the CDMA receive band (CDMA RX) and (2) an LNA 234b that amplifies the filtered signal from filter 236b and provides a diversity CDMA received signal (CRXD) to RF unit 250a. ~~Filter 228b and 234b~~ Filters 226b and 236b perform filtering to preselect the second GSM receive band and the CDMA receive band, respectively.

[0043] When operating in a diversity mode, the main and diversity CDMA receive paths are both active and tuned to the same RF channel on the CDMA receive band. RF unit 250a processes the main and diversity CDMA received signals from the main and diversity CDMA receive paths, respectively, and provides main and diversity baseband received signals (C_RXM and ~~C_RXP~~ C_RXD), respectively. A rake receiver (which is commonly used for CDMA) then processes and combines two data sample streams for these two baseband signals to obtain a composite received symbol stream having improved received signal quality, which may be quantified by an energy-per-bit-to-total-noise ratio (E_b/N_o). A higher E_b/N_o can provide

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improved performance (e.g., higher overall throughput) for high data rate applications such as CDMA 1X EV-DO, UMTS High Speed Packet Data, UMTS High Speed Circuit-Switched Data, and so on.

[0061] Within first section 212d, a single-pole two-throw (SP2T) T/R switch 220d has one common RF port coupled to main antenna 202 and two I/O RF ports coupled to the GSM transmit path and the CDMA transmit path. The GSM transmit path is the same as in section 212a in FIG. 2. The CDMA transmit path is implemented with filter 242a and power amplifier 244a and is as described above for FIG. 2. Within second section 214d, a ~~duplexer~~ diplexer 230d couples to diversity antenna 204 and to the GSM and CDMA receive paths. Diversity antenna 204 is used as a second antenna and not for diversity. The GSM receive path includes filter 226a and LNA 228a, and the CDMA receive path includes filter 236a and LNA 234a, as described above for FIG. 2. Diversity antenna 204 is designed to have 22 dB or more of isolation from main antenna 202 to prevent damage to the receiver circuitry in section 214d from the GSM transmit bursts.